

CLAIMS

1. A threaded container closure assembly, said assembly comprising:
a container neck having an opening;
5 a closure for said neck, the closure having a base portion and a skirt portion;
a first screw thread on the neck, said first screw thread comprising one or more first thread segments, and a second screw thread on an inner surface of the skirt of the closure, said second screw thread comprising one or more second
10 thread segments, said first and second screw threads being configured to enable a user to secure, remove and resecure the closure into a sealing position on the neck by rotation of the closure on the neck;
a first locking projection on the container neck separate from the first thread segments and a second locking projection on the inner surface of the skirt of the
15 closure separate from the second thread segments, said first and second locking projections being configured to resist unscrewing of the closure from the fully engaged position on the container neck after the closure has been secured or resecured on the container neck until a predetermined minimum opening torque is applied;
20 wherein said first and second locking projections longitudinally overlap the first or the second thread segments when the closure is in the fully engaged position on the container neck.
- 2 A container closure assembly according to claim 1, wherein the first and/or
25 second locking projections do not extend substantially below the lower edge of the first or second thread segments when the closure is in the fully engaged position on the container neck.
3. A container closure assembly according to claim 1 or 2, wherein the first
30 and/or second locking projections have a length in the longitudinal direction of from about 1 mm to about 4mm.

4. A container closure assembly according to any preceding claim, wherein the height of at least one of said locking projections is from about 0.25mm to about 2mm.
- 5 5. A container closure assembly according to any preceding claim, wherein for at least one of said locking projections the ratio of the maximum height to the maximum radial width is at least about 0.5.
6. A container closure assembly according to any preceding claim, wherein
10 the first and second locking elements are situated near the bottom of the threads when the closure is fully secured on the container.
7. A container closure assembly according to any preceding claim, wherein said first locking projection is located longitudinally overlapping with and radially
15 spaced from an upper end of a first thread segment, or said second locking projection is located longitudinally overlapping with and radially spaced from a lower end of a second thread segment, whereby the said first or second locking projections to defines an extension of the thread path defined by the thread segments on the neck or the closure.
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8. A container closure assembly according to any preceding claim, wherein said first thread segments are shorter than said second thread segments.
9. A container closure assembly according to any preceding claim, wherein
25 there are from 2 to 32 of said first thread segments, preferably from 4 to 16 of said first thread segments.
10. A container closure assembly according to any preceding claim, further comprising mutually engageable elements on the neck and the closure to block or
30 restrict rotation of the closure in an unscrewing direction beyond an intermediate position when the closure is under axial pressure in a direction emerging from the container neck.

11. A container closure assembly according to any preceding claim, wherein the first and second thread segments define a substantially continuous helical thread path along which said closure travels from a substantially fully disengaged to a substantially fully secured position of the closure on the container neck.

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12. A container closure assembly according to any preceding claim, wherein the closure can be moved from a fully released to a fully engaged position on the container neck by a single smooth rotation through about 360 degrees or less.

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